

NEW SPECIES OF NORTH AMERICAN
DOLICHOPODIDÆ.

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Buffalo, N. Y.

Nothosympycnus luteipes sp. nov.

Male: length 2 mm. Face very narrow, white. Front dark blue, shining. Antennæ black or brown; third joint rather large, oval; arista twice as long as the antennæ, pointed at tip. Lateral and inferior orbital cilia whitish.

Dorsum of thorax brown, shining, still a little dulled with brown pollen; scutellum blue. Abdomen with the first, second, sides of third segment and the venter yellow; dorsum of third segment, the apical segments and the hypopygium blackish with green reflections; appendages of the hypopygium wholly black, except the yellow penis.

All coxæ and the posterior edge of the pleuræ yellow; coxæ without black hair or bristles, except the erect bristle on outer surface of hind ones. All femora and fore and middle tibiæ yellowish, tips of hind femora and the hind tibiæ more brown or black, still the base and lower edge of the tibiæ are yellowish. Fore tarsi (fig. 4) yellow, blackened from the tip of the third joint; first joint about as long as wide, second as long as the two following joints taken together, fourth distinctly shorter than third and slightly longer than fifth. Middle tarsi (fig. 5) black from the tip of the first joint, which is about as long as the remaining four taken together; tip of first joint with two and basal half of second joint with three long, slender, crooked hairs; second joint a little widened on basal half; third joint as long as second, fourth slightly shorter, fifth still shorter. Hind tarsi wholly blackish, shorter than their tibiæ, first joint shorter than second. Calypters and halteres yellow, the former with black cilia.

Wings brownish gray, narrowed to the root; last section of fifth vein nearly four times the length of the cross-vein.

Described from two males taken at Bar Harbor, Me., July 22, 1914, by C. W. Johnson.

This is almost like *frontalis* Loew, except in the formation of the tarsi, *frontalis* having the fourth joint of fore tarsi much longer than the third. The middle tarsi of *frontalis* also have the first joint longer than the remaining four taken together, and the second about twice as long as the third.

Campsicnemus wheeleri sp. nov.

Male: Length 2 mm. Face brown, narrow, the eyes nearly touching on upper part, wider below. Palpi and proboscis black. Front black with slight blue reflections. Antennæ black; third joint somewhat conical in outline, about as long as wide; arista basal, twice as long as the antenna. Orbital cilia black above, brownish below.

Dorsum of thorax shining black, slightly dulled with brown pollen; humeri and pleuræ green, the latter with brown pollen; scutellum blue. Abdomen green with purple reflections on the center of the dorsum. Hypopygium small, mostly concealed.

Coxæ blackish, anterior pair more yellowish apically, with black hair on the front surface. Femora and tibiæ brownish yellow; fore and middle femora slightly thickened. Fore tibiæ blackish at base and tip, with two very small bristles above and one below; middle and hind tibiæ darkened apically; middle ones widened and bent as in figure 1; the tip, when viewed from above, is enlarged, blackish, with two yellow spots on the edge (fig. 2). Middle tarsi black, formed as in figures 1 & 2, the first joint is narrowed in the middle when viewed from the side and is enlarged near the apex, terminating in a thumb-like tip; when viewed from above it is slightly tapering, not narrowed in the middle. Last four joints of middle tarsi of nearly equal length and about as long as the first, still the fifth is slightly shorter and has three long hairs at tip. Fore tarsi brown,

first joint as long as the three following taken together, third and fifth of nearly equal length second slightly longer and fourth shorter than third. Hind tarsi brown, first and second joints of equal length, the following joints of slightly decreasing length. Calypters, their cilia and the halteres brown.

Wings tinged with brownish; third and fourth veins parallel beyond the cross-vein, widely separated; last section of fourth vein with a faint brown spot at its basal fourth; last section of fifth being twice as long as the cross-vein; anal angle prominent.

A female which probably belongs with this species differs in the thorax having purple reflections; legs plain and a little more yellow; middle and hind basitarsi yellow with a black tip; calypters and knobs of halteres more yellowish, the former with black cilia; middle tibiæ with two bristles below and several on upper surface. wings with the spot at basal fourth of the last section of fourth vein very conspicuous.

Described from one pair taken in Maine; the holotype, male, was taken at Machias, July 20, 1909, and the allotype a female at Bar Harbor, August 4, 1918; both were taken by C. W. Johnson. He sent them to me with the name *wheeleri* attached but had never described them.

This is very much like *ædipus* Wheeler, but this form has the legs more yellowish; the middle tibiæ of the male of a little different shape; the middle basitarsus contracted in the middle, more enlarged apically, and not ending in a point; their third and fourth joints are also nearly twice as long as in *ædipus*; the brown spot on the fourth vein of the wing is very indistinct in this form. The females of the two species are probably difficult to separate.

Hercostmus costalis sp. nov.

Male: Length 3 mm.; of wing the same. Face of moderate width, silvery white. Front thickly covered with white pollen, so as to conceal the ground color when viewed obliquely.

Antennæ wholly black; third joint not as long as wide, somewhat pointed at tip, arista nearly basal. Lateral and inferior orbital cilia whitish, about five to six of the upper cilia on each side black.

Thorax and abdomen green with bronze reflections; mesonotum dulled with gray or brownish gray, pleuræ with white pollen; abdomen with white pollen on the sides. Hypopygium (fig. 3) black; its lamellæ somewhat angulated and deeply notched at tip, yellow with the edge narrowly black, fringed with bristles which are deep black in color, some of them flattened, and a little enlarged at tip; there appear to be two pairs of inner appendages, one blackish and the other yellow.

Coxæ and femora black; tips of coxæ and narrow tips and the base of all femora yellow, the yellow at base of hind femora sometimes nearly reaches their middle. Middle and hind femora each with one preapical bristle. Tibiæ yellow, posterior pair with their tips blackened for nearly one third their length; fore tibiæ with only two or three slender bristles on upper surface. Fore and middle tarsi black from the tip of the first joints; anterior pair about as long as their tibiæ, their joints in the proportion of 24-8-6-4-6; hind tarsi wholly black, first joint scarcely as long as second. Calypters and halteres yellow, the former with black cilia.

Wings slightly grayish; costa considerably enlarged at tip of first vein, this enlargement tapers quite rapidly at first, more gradually afterwards and extends nearly to the tip; third and fourth veins converge from the cross-vein to their tips, where they are about half as far apart as at the cross-vein; last section of the fifth vein about one and a third times as long as the cross-vein; anal angle rather prominent, its margin nearly parallel with the sixth vein.

Described from four males; I took one at Toronto, Ont., July 4, 1911, one at Port Credit, Ont., July 14, 1918 and one at Ridgeway, Ont., June 22, 1919; the other was taken by J. S. Rogers, at Floodwood, Schoolcroft Co., Mich., July 11, 1915, this is in the collection of Dr. J. M. Aldrich.

Holotype in the author's collection and taken at Toronto, Ont.

Diaphorus spinitalus sp. nov.

Male: Length 3 mm. Face wide, shining green, only slightly dulled with brownish pollen. Palpi rather small, dark yellow; proboscis black. Antennæ black, third joint small, rounded, arista apical. Lower orbits nearly bare, below the head there are a few white bristles.

Thorax and abdomen green with coppery reflections; scutellum with one pair of large bristles and a pair of hairs on the margin. Hypopygium and its appendages small, black, the bristles at tip short.

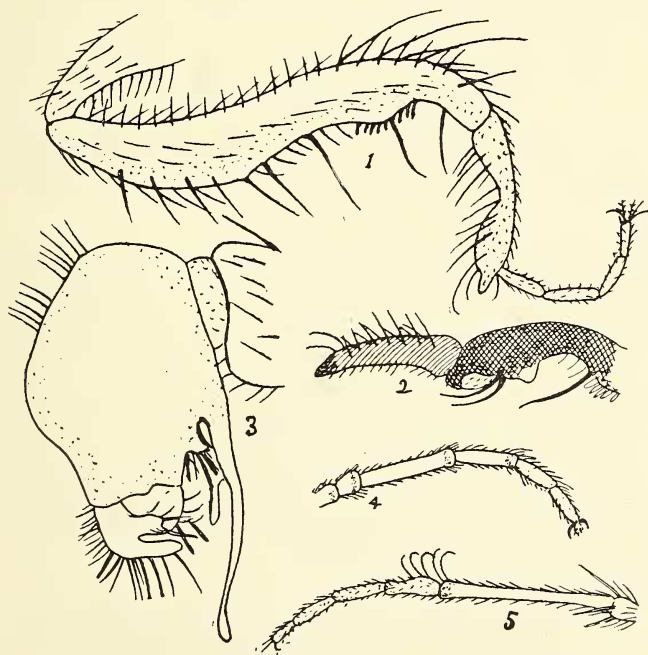


Fig. 1, *Campsicnemus wheeleri* sp. nov., middle tibia and tarsus; fig. 2, tip of middle tibia and basitarsus of the same, viewed from the side; fig. 3, *Hercostomus costalis* sp. nov., hypopygium; fig. 4, *Nothosympycnus luteipes* sp. nov., fore tarsus; fig. 5, middle tarsus of the same.

Coxæ, legs and feet black, fore and middle knees yellowish. Fore coxæ with white hairs on their anterior surface. Joints of fore tarsi as 21-12-9-3-7; those of hind tarsi as 19-13-8-6-6; first joint of hind tarsi with an erect bristle below near the base, which is about as long as the diameter of the joint. Pulvilli of fore tarsi slightly enlarged.

Wings grayish; first vein reaches two-fifths of the distance to the tip of the second; third and fourth veins nearly parallel, fourth ending just before the apex of the wing; last section of fifth vein nearly twice as long as the cross-vein, which is near the middle of the wing.

Described from one male taken by E. P. Van Duzee, at Strawberry Valley, Eldorado Co., California, August 15, 1912. Type in the California Academy of Sciences.

Diaphorus spinifer Malloch.

Chrysotuss pinifer, Bull. Ill. State Lab. of Nat. Hist., Vol. X, p. 238.

The pulvilli of the fore tarsi are somewhat enlarged in this species and it has very small bristles at the tip of the abdomen, these points together with its slender form are enough to place this in the genus *Diaphorus*, especially as that will bring it near the species described above, which differs from it in having the bristles at the tip of the abdomen larger, the bristle on the hind tarsi smaller, and the palpi much smaller, those of *spinifer* being each as large as the face, or nearly so. *Simplex* Ald. also has a large bristle below at base of hind tarsi, but in that species the third and fourth veins are much bent.

I have taken *spinifer* in Erie Co., N. Y., in August; Ft. Erie, Ont., July; Alpine, San Diego Co., Calif., April; Sacramento, Calif., June; Dr. Aldrich took it at Lewiston, Idaho. It was described from Illinois.

Dolichopus uliginosus sp. nov.

Male: Length 4.7 mm.; of wing 4 mm. Face rather narrow, yellowish. Front shining green. Antennæ wholly black; third joint about as long as wide, scarcely pointed at tip. Orbital cilia black with the four lowest ones on each side yellow.

Thorax shining blue-green with violet reflections; pleuræ slightly dulled with gray pollen. Abdomen shining green with black incisures and with white pollen on its sides. Hypopygium and its lamellæ black, the latter somewhat triangular in outline and about as wide as long.

Coxæ, legs and feet black. Fore coxæ with black hairs on their anterior surface. Middle and hind femora each with one preapical bristle, the latter ciliated on lower inner edge with long black hairs, which appear nearly white in certain lights, the longest of these hairs scarcely as long as the width of the femora. Hind tibiæ with brown pollen on inner surface, which is conspicuous when viewed obliquely, they are distinctly thickened almost from their base. Middle tibiæ with one large bristle just beyond the middle on their lower surface. Anterior tarsi scarcely as long as their tibiæ, the first joint as long as the remaining four taken together, fifth as long as second, fourth joint the shortest. Middle tarsi as long as their tibiæ, the first joint without a bristle above. Calypters yellow with black cilia. Knob of the halteres yellow, their stem brown.

Wings grayish; costa with a slight knot-like enlargement at tip of first vein; fourth vein a little bent just before the middle of its last section; hind margin of wing scarcely indented at tip of fifth vein; anal angle of wings rounded, not prominent, the hind margin being nearly evenly rounded.

Described from one male taken at the Biological Station at Nanaimo, B. C., June 23, 1920, by E. P. Van Duzee. Type in the California Academy of Sciences.

This would run in the table of species in the Bulletin U. S. National Museum No. 116, p. 11, couplet 8, of group C, to

deterus Loew; it very much like that species in the form of the hypopyginal lamellæ and structure of the legs and feet, but differs in having only four or five of the lower orbital cilia yellow, in *deterus* the lower orbital cilia are grayish white, not yellow and the pale cilia reach above the middle of the eye.

***Dolichopus interjectus* sp. nov.**

Male: Length 4 mm.; of wing 3.5 mm. Face rather narrow, silvery white. Front shining green. Antennæ wholly black; third joint a little longer than wide, obtusely pointed at tip. Lower half of the orbital cilia whitish.

Thorax dark shining green; pleuræ with whitish pollen. Abdomen green with slight bronze reflections. Hypopygium black with green reflections; its lamellæ of moderate size, somewhat oval in outline, whitish with rather wide black border on apical margin, which is jagged and bristly, upper edge fringed with a few short black hairs.

Coxæ, legs and feet black; fore and middle trochanters and all knees yellow. Fore coxæ covered with black hairs on their anterior surface. Middle and hind femora each with one preapical bristle, the latter nearly bare below. Hind tibiæ slightly thickened, more so at tip. Fore tarsi about one and a fourth times as long as their tibiæ, first joint fully as long as the following three taken together, fifth nearly as long as the second, fourth the shortest. Middle tibiæ with one large bristle below at apical third. Middle tarsi about equal to their tibiæ in length, their first joint without a bristle above. Calypters and halteres yellow, the latter with whitish cilia.

Wings grayish, tinged with brown in front of third vein; costa with a small knot-like enlargement at tip of first vein; last section of fourth vein a little bent before its middle; hind margin of wing not indented at tip of fifth vein; anal angle of wing prominent.

Female; Agrees with the male, except that the face is wider and the white is scarcely silvery; third antennal joint not longer

than wide; cilia of the calypters about half black; the costa not enlarged at tip of first vein.

Described from two males and one female, taken in Powell Co., Montana, by A. L. Melander. Holotype and allotype in the collection of A. L. Melander.

This would run to *formosus* in the table of species in the U. S. National Museum Bulletin 116, page 11, couplet 5, in group C, but differs from that species in having the hypopygial lamellæ jagged at apex and fringed with short hairs above, *formosus* has the lamellæ fringed above with longer hairs and their apical margin is not at all jagged, the black border is broader in this form than it is in *formosus*. The wing in *interjectus* has a distinct enlargement at tip of first vein and the anal angle is more prominent than in *formosus*.

The female runs in the table of species in the Bulletin, page 28, couplet 23, to *nigrimanus*, but it differs in having the fore tarsus fully as long as the tibiæ, while in *nigrimanus* they are scarcely as long as the tibiæ.

Dolichopus perplexus nom. nov.

Dolichopus misellus Melander, Canadian Entomologist, vol. xxxii, p. 130, 1900. U. S. National Museum Bulletin 116, page 229, 1921. *Dolichopus melanderi* Becker, Zool-Boten. Gesellschaft, Wien, vol. xiii, No. i, page 15, 1921.

Dr. Becker in the American portion of his monograph of the Dolichopodidæ gives the name *melanderi* to *Dolichopus misellus* Melander, as that name was preoccupied by *Dolichopus misellus* Bohem., 1851, but as that name is also preoccupied by the publication of the description of a *Dolichopus melanderi* VanDuzee, Cole & Aldrich, in March, 1921 (U. S. National Museum Bulletin 116, page 70, I would propose the name *perplexus* for this form.

Psilopus longitalus sp. nov.

Male; Length 5 mm. Face bare; fore coxæ and all femora and tibiæ yellow; all tarsi plain with only short hairs and bristles, except the fore basitarsus which has three long slender bristles; middle tibiæ with only minute scattering bristles, which are scarcely as long as the diameter of the tibiæ.

Face bare, blue-green with white pollen. Front shining blue with the upper corners green. Antennæ black; its second joint with a bristle above which is twice as long as the short third joint; arista as long as the height of the head. Lateral and inferior orbital cilia white.

Thorax, scutellum and basal half of first abdominal segment blue, the remainder of the abdomen green with bronze reflections, its incisions black. Bristles of the thorax and abdomen rather short. Hypopygium and its appendages black, formed about as in *sipho* and *furcatus*.

Fore coxæ wholly yellow with yellow hair and two black bristles; middle and hind coxæ and their trochanters black with white hairs and black bristles; femora and tibiæ yellow, posterior tibiæ scarcely blackened at extreme tip. All femora with long yellow hairs below and about three small black bristles near the tip. Anterior tibiæ with four long black bristles on lower posterior edge; middle pair with only very short, scattering bristles; hind tibiæ without bristles. Fore basitarsi equal to their tibiæ in length, and with three long slender bristles on posterior surface, they are yellow with the extreme tip black; last four joints taken together scarcely as long as the first. Middle tarsi with the first joint nearly one and one fourth times as long as their tibiæ, black from the extreme tip of first joint; last four joints taken together about half as long as the first. Hind tarsi black, plain, first joint a little more yellowish and longer than the remaining four joints taken together. Calypters and halteres yellow, the former black with tip and cilia.

Wings with two brown cross-bands connected on the costal edge as far back as the third vein, the basal band covers the

cross-vein but does not reach back of the fifth vein; anterior branch of the fourth vein at right angles to the fourth vein and with the upper bend also a right angle but still it is a little rounded, it ends close to the tip of the third vein.

Female: The bristle on upper edge of second antennal joint twice as long as the third joint; the first joint of fore and middle tarsi is nearly as long as their tibiæ and shorter than the remaining four joints taken together; the anterior branch of the fourth vein of the wing bends backward a little, its upper bend is nearly a right angle and only a little rounded.

Described from one male and eleven females taken at Winnfield, La., July 14, 1918, by G. R. Pilate.

Holotype and allotype in the collection of Prof. James Hine.

This differs from *elegantulus* Becker from Brazil (Zool.-Botan. Gesellschaft, Wien, Vol. xiii, part i, p. 294) in having three long slender bristles on the first joint of fore tarsi, while *elegantulus* has only one long bristle on the fore basitarsus; this species is also larger.

This form belongs to the group with *sipho* Say, *scaber* Leow, and *furcatus* VanDuzee, but differs in there being only very small bristles on the middle tibiæ, it differs from the first two in not having a row of bristles below on middle tibiæ. It also has the first joint of fore and middle tarsi longer than any of the other species. The female differs from that of *sipho* in having the bristles on upper edge of the first antennal joint longer; in *sipho* the anterior branch of fourth vein is much more bent backward and its upper bend is much more broadly rounded, not at all a right angle.